

SBARA's Groundplane

The monthly Newsletter of the South Bay Amateur Radio Association

President's Corner By Steve KA6S

We received some disappointing news last month concerning our efforts to get approval of establishing a SBARA club station at the Veteran's Hall last month. Apparently, approvals had been gained all the way through the Board of Supervisors, but that wasn't quite enough. From my understanding, Legal Council for the County couldn't approve the request because of a general requirement placed on the VA Halls county wide that such activities must be conducted by Vets.

With that said, it was suggested that we reply using a different approach, i.e. have members who are Veterans apply in setting up the station as part of their activities. So I would like all of you folks who are Vets, especially those who are members of the VA, to try and attend this February meeting so that we can start putting such an effort together.

As you also may have heard, a momentous event will occur on February 23, 2007. The Morse code will no longer be required to acquire an amateur radio license after that date. In the spirit of the event, several of us are considering the possibility

of offering a General License Theory class. This will not be a one-day wonder event, but rather a series of classes designed to teach basic electronics and radio theory. No dates have been set yet, nor a facility found to hold the classes. I'm interested in hearing from any SBARA member who would like to participate in the class, help teach the class, or has a room at some facility they can offer the club to use to hold the class. (This last is most important – no facility, no class!). Let me hear from you about this idea.

Extra Extra

Finally, the East Bay section is organizing an East Bay Section Ham Expo. The idea is for each club in the section to hold some sort of program. This might be electronic test equipment demonstrations, examples of various antennas types, simple antenna contraction., antenna shootout for both HF and VHF/UHF, field strength measurement, intro to fox huntin,. whatever. We are looking for someone who is interested in organizing SBARA's participation in the event. Note that it occurs on the same weekend as Dayton, May 19,20 2007.. (Not sure whether it's Saturday or Sunday yet). Please contact me or one of the other board members if you are interested.

73 till next month de Steve KA6S

**This news Stopped
the Presses !!!!!!!!!!!**

SBARA's Groundplane

FEBRUARY 2007 VOLUME 8 ISSUE 2

The monthly Newsletter of the South Bay Amateur Radio Association

Dear Fellow SBARA Members,

are you an ARRL member? The ARRL offers great extras, e.g. the QST magazine. I love receiving the QST every month, many interesting articles can be read there each month. Hardcore hams can subscribe for the QEX magazine, with further material about how to create a bleeding edge transceiver and more. The ARRL „Handbook“ is famous around the globe (I got my first one when I still lived in Germany!), and the ARRL offers a great deal of books, information and help if you require it. ARRL membership costs less than fourty dollars a year. Did you know that you can apply through the SBARA for an ARRL membership, and that you can also renew your ARRL membership through us? If you do, we do all the burocratic stuff for you, and the SBARA can even keep a little part of your payment.

Go for it, it's worth it!

73!

Bernhard, AE6YN / DL4MHK
SBARA treasurer



Bill sends along this interesting tidbit from history:

After having dug to a depth of 1000 meters last year, Massachusetts scientists found traces of copper wire dating back 1000 years and came to the conclusion that their ancestors already had a telephone network more than 1000 years ago.

Not to be outdone by the Massachusetts Pilgrims, in the weeks that followed, Michigan scientist dug to

a depth of 2000 meters and shortly thereafter headlines in the Kalamazoo newspapers read: "Michigan archaeologists have found traces of 2000 year copper wire and have concluded that their ancestors already had an advanced high-tech communications network a thousand years earlier than the Massachusetts Pilgrims."

One week later, The Huntsville, Alabama Observer reported the following: "After digging as deep as 5000 meters in Northern Alabama, scientists have found absolutely nothing. They have therefore concluded that 5000 years ago Northern Alabama inhabitants were already using wireless technology."

The FCC has modified the Amateur Radio Service rules, eliminating Morse code exam requirements. The new rules become effective at 12:01 AM Eastern Time Friday, February 23, 2007.



February's Meeting Program

Baker to Vegas by Ron Suzstar

23rd Annual Challenge Cup
Baker to Vegas Relay
April 21-22, 2007

Meeting starts at 7:30 at the Veterans Hall,
Pre-Meeting dinner at Pizza Patio @6PM.

See you at the meeting!



STEPS

FOR A STATION...

1

A Stations Operator License. All station operators at a specific testing level for correct compliance with FCC rules.

2

A well-tuned antenna array properly grounded at an adequate height for the band and mode of operation.

3

An HF transceiver capable of receiving all modes of communications. SSB, CW, AM and FM.

4

Have fun and operate with the focus on making new friends and promoting amateur radio.



Fremont Fire and Red Cross Partner to Train Shelter Representatives

The City of Fremont has taken a new step towards increased disaster preparedness and response. On January 30, 2007, in the CERT Training Room behind Fremont City Hall, Fremont Fire Dept. held a Red Cross Shelter Operations and Management Training event for 98 local leaders. The Red Cross Mass Care Team, led by Charles Telehala, Alameda County Red Cross Disaster Services Manager, walked representatives from 47 City of Fremont Designated Emergency Shelter Sites through shelter rules and procedures. Fremont church, school, and city leaders worked through table top exercises coming up with solutions for "those in need of care." Joining in this training event were 15 Amateur Radio Operators from the Tri-City area, including 6 SBARA members. Fremont Fire extends its gratitude to SBARA officers Bernhard Hailer and Brad Douglas for representing SBARA. Charles Telehala urged all groups represented to train "one of their own" to become

an Amateur Radio Operator. He pointed out the key communication role that ham radio operators play in connecting shelters to the local EOC. Union City and Newark Fire Depts. & CERT program representatives also attended and will be following up with the Red Cross to host similar shelter training in each of their cities.

All training participants gained valuable knowledge about the sheltering process and took a Red Cross Shelter Manual back to each of their facilities for future use and reference. This event is a reminder of the importance of partnerships between city and various community groups. Our area's ability to recover from a major disaster is dependent upon mutual cooperation between Tri-City leaders & emergency responders, the Red Cross, private businesses, schools, volunteer and faith-based communities.

Theresa Evangelista, Northern California Red Cross Donor Recruitment Manager, also gave a short presentation on the importance of blood donation, encouraging the groups in attendance to host blood drives. For more information on blood donation go to www.BeADonor.com.

Circle Friday, February 23, on your calendar. That's when the current 5 WPM Morse code requirement will officially disappear from the Amateur Radio Service Part 97 rules. Effective that date, applicants for a General or Amateur Extra class Amateur Radio license no longer will have to demonstrate proficiency in Morse code. They'll just have to pass the applicable written examination. Federal Register publication January 24 of the FCC's Report and



Order (R&O) in the "Morse code proceeding," WT Docket 05-235, started a 30-day countdown for the new rules to become effective.....The ARRL has posted all relevant information on these important Part 97 rule revisions on its "FCC's Morse Code Report and Order WT Docket 05-235" Web page <http://www.arrl.org/fcc/morse/>.

I thought this might be an interesting article since I always wondered how an alternator generated electricity. I have been studying this topic at school lately and thought hams might be interested.

There are no permanent magnets in alternators. It uses an electromagnet called the Field coil. And the magnet spins! The rotating magnet is called a Rotor. There is no commutator. It uses two slip rings instead. These are solid copper rings that supply the voltage to run the spinning electromagnet. The brushes ride on them. The coil winding is around the inside perimeter of the frame. This is called the Stator. As the Rotor cuts the magnetic lines of flux in the coil winding a current is produced. The stronger the magnetic field the more current is produced. Speed is not a big factor in alternators. If it goes too fast it just saturates the coil and no more current is produced, it is at maximum. Really low speed is not going to generate much of anything but it will generate some current regardless. But until it hits about 14 volts where the voltage regulator works it is not helping. The output from the coils in the Stator winding is actually three phase AC.

This get rectified by six diodes inside the alternator to pure DC. There is also a capacitor that helps smooth out the ripple. This DC goes to the big lug on the back of the alternator. And powers your vehicle's electrical system. Remember the Rotor? The magnetic field of the Rotor is what the voltage regulator controls! I never knew that. The amount of voltage going



to that electro magnet is what controls the output of the alternator. More magnetism = more output. And the amount of current needed to generate the magnetism is very small compared to the output of the alternator. So you don't need big brushes. And there is minimal sparking at the brushes. Alternator whine most likely comes from ripple in the DC out of the alternator. The bane of all hams with mobile rigs.

Oh, don't run your car accessories if the car is off and the key is in the Run position. Use the ACC position.

In the Run position voltage is going to the alternator Rotor constantly. It will get hot and shorten the life of the alternator. In the ACC position it doesn't do that.

A generator, by the way, works in the reverse fashion. The magnet is fixed and the coil spins. But they are not as good as an alternator. All the current has to flow through the brushes. So it can get really noisy.

Generators are old technology but they still pop up in things from time to time. Like some lawn tractors. They require a different voltage regulator as well.

Oh and it is recommend you change brushes when they get to 50% of their original length. (In aircraft anyway.)

That's the quick overview. I hope you enjoyed it.

Mike K6EEP

**Groundplane SBARA Newsletter
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The Groundplane is published monthly by the South Bay Amateur Radio Association. Articles and letters are always welcome. The normal deadline for material is six days prior to the end of the previous month. Articles

can be sent by email to hamradio@comcast.net or via U.S.

Mail. Contact the Editor for details and submission guidelines.

The opinions expressed in the Groundplane are strictly those of the authors.

Vibroplex Paddles

Vibroplex Paddles

Some background information...

Vibroplex is a famous manufacturer of keyer paddles and semi automatic bugs that are used to send CW. They have a long history in the USA and are quite sought after. They have some beautiful chrome and even gold plated models.

However I feel they lack some functionality. Here is some email I exchanged with them yesterday.

Original email to Vibroplex...

I have to get this off my chest. This has been bugging me for years about your paddles. The adjustment screws for your contacts need to be a finer pitch thread. The adjustment is too coarse when I try to set a small gap. It looks like you are using a 32 pitch thread. It should be a 48 or finer. This would allow high speed CW operators like myself to creep up to a small gap rather than jump back and forth over it. Additionally when you set your gap and try to lock the locknut the gap changes. Mainly due to backlash in the threads. A finer pitch thread would minimize the backlash as well.

Ahhh I feel better now.

Mike, K6EEP

First reply from Vibroplex:

Mike, you are just not a traditionalist! :)

If we make the slightest change, I get called on the carpet... :(Mitch W4OA

Second reply from Vibroplex

Hello Mike, thanks for the input....especially if it makes you feel better! Vibroplex prides itself on keeping the design of the Original Bug the same as it was when patented in 1904. Everything, including the pitch thread is the same, and it was designed at the time for high speed. This is the first comment we have had about this since I have been working for Vibroplex (1997). I will definitely let the staff know about it for future consideration.

Betsy, WB4ZYK, Office Manager

So I will stick with my German made Schurr Profi keyer paddles. But I will keep an eye on Vibroplex in case something happens there.

Here is a website to find almost any kind of CW sending device you can think of. <http://www.mtechnologies.com/keys.htm>

The Schurr is here. <http://www.mtechnologies.com/schurr/>

Mike, K6EEP

SBARA Treasurer Note, February 2007

Dear SBARA member,

There was no treasurers report in the January issue - your treasurer has been in DL over the holidays, enjoying his family, a traditional Christmas goose dinner, and a New Years Eve with good friends.

It is February now, and the years business starts. A number of chores have to be performed by the treasurer: he has to set up a draft budget for the year, there is an insurance SBARA has to pay (requirement for the Veteran's Hall meetings), the SBARA P.O.Box #8377 at Dusterberry St. has to be renewed for the year, and a tax declaration will have to be issued by

mid of May.

I'm glad to report: So far everything is on time.

When the first board meeting takes place in a few days, the budget will be reviewed and (hopefully) approved. The draft is based on the true expenses and income in the year 2006; this last year was extremely good due to the great work of many of our members, and we will have to work hard to achieve this again. Let's see how 2007 will develop for us!

Yours sincerely - 73!

Bernhard, DL4MHK / AE6YN



Fremont Medical Reserve Corp.

The City of Fremont Fire Department is recruiting active and retired doctors, nurses, pharmacists, dentists, veterinarians, paramedics, EMTs, medical students, non-hospital associated medical practitioners, mental health professionals, medical translators and other interested volunteers to join the Fremont Medical Reserve Corps (MRC).

The mission of the Fremont Medical Reserve Corps (MRC) is to improve emergency preparedness and to strengthen our local public health infrastructure. The Fremont MRC shall work to achieve this through enhancing mass medical care in disaster situations.

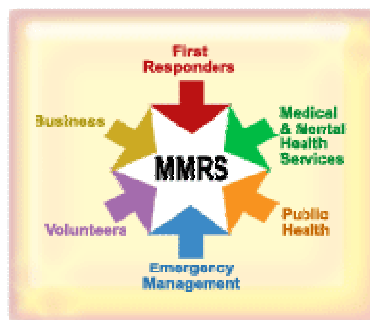
The City of Fremont Fire Department has been very successful in its efforts to enhance public and the medical community's disaster preparedness. We have developed enhanced capabilities to respond to disaster events such as a major earthquake, a terrorist attack, or an epidemic disease outbreak.

The Medical Reserve Corps (MRC) is a national program with a local, community-based emphasis. Its mission is to support community efforts to utilize local medical and health volunteers during emergencies and at other times of community need.

- The MRC program was launched officially as a national, community-based movement in July 2002. It was formed in response to President Bush's call for all Americans to offer volunteer service in their communities.
- The MRC is a partner of the White House's USA Freedom Corps and the Department of Homeland Security's Citizen Corps. Citizen Corps., AmeriCorps, Senior Corps, and the Peace Corps are part of the President's USA Freedom Corps, which promotes volunteerism and service nationally and internationally.

Since the MRC initiative began in 2002, units have been formed in every state, and thousands of individuals have signed up or have expressed interest in volunteering.

If you are interested in joining the Fremont MRC or please contact the Fremont Fire Department Public at (510) 494-4244 or email at



have questions,
Education Hotline

CW Practice Group

Dear CW enthusiast (maybe you are interested in becoming one?),

Don't worry, I'm not going to comment on FCC dropping the CW exam, a thousand other hams and non-hams did that already before. Personally, I love CW, but admittedly: I'm slow. It's simply the lack of practice, since I haven't much time, work is keeping me busy for long hours, and I have sooo many other private projects. I became painfully aware of this lack of practice when I participated on the 2006 fieldday. It became clear that I have to be better next time.

Fortunately there is help. SBARA has started a CW practice group. We are now a good number of interested people, so that we should often be able to start some rag chewing – the best method brushing up your telegraphy skills! We meet

Tuesday and Thursday on 80 meters, 3.877 MHz, at 8:30 p.m. ... 9:30 p.m.

We encourage slow speed for the newcomers. Join in when you get some practice with a key or paddle and feel comfortable sending about five words per minute. Do not try to send fast, it is not necessary. If Al, Amanda and/or Bernhard are the only ones to show up, the speed is around 10-20 wpm. Don't let that

scare you away. When you are ready, send the letters BK DE <your callsign> (meaning „break from ...“) and we should acknowledge you.

A few codes you should know:

GA go ahead, take a turn sending.

GE good evening,

GN good night,

U you or

UR your,

PSE please,

FB fine business,

RST signal report (R = readability, S = signal strength, T = Tone),

DE from,

ES and also.

A couple 'Q' signals that you might find handy are

QRS send slower,

QRQ send faster,

QTH my location.

Looking forward to working you on CW!
Bernhard

Wanted: Lutheran Church Missouri Synod hams for new amateur radio support network

Hurricane Katrina changed many lives in many heart-breaking ways. But for Rev. Larry Beane, one surprisingly positive change is his return to a boyhood hobby.

"Hurricane Katrina convinced me to become active in ham radio once again," said Beane, associate pastor at Salem Lutheran Church, Gretna, La. "For weeks after Katrina, we had chaos as people had no idea if friends and family members even survived the storm. A network of LCMS hams could help people communicate their locations to rescue workers as well as rapidly get messages out to concerned family and church members."

That's why Beane (who uses the amateur radio call sign WB8VNR) is one of a growing number of LCMS hams, as amateur radio operators are called, helping to build a new emergency communications network as part of a comprehensive disaster response plan being developed by LCMS World Relief/Human Care.

Hams have a long history of providing communication assistance when hurricanes, floods, fires, and other disasters disrupt telephone service and other communications. The LCMS Amateur Radio Support Network (ARSN) will serve congregations and their communities and assist LCMS World Relief/Human Care with disaster response.

"Short-wave radio communication is invaluable to disaster response teams during a regional or catastrophic disaster when all other forms of communication are destroyed or rendered useless, such as was the case the first few days after Katrina," said Rev. Glenn Merritt, LCMS World Relief/Human Care director of disaster response. "This network will be particularly valuable to our district offices and to LCMS World Relief/Human Care should another catastrophic disaster occur, not only in the United States, but worldwide."

LCMS hams, Merritt said, represent "another part of the immense capacity found within our own LCMS to help those affected by disaster."

The LCMS ARSN is being developed by James Kienker (KC0OQP) a licensed amateur radio operator and student at Westminster College, Fulton, Mo. About two dozen LCMS hams from throughout the United States already have expressed an interest in joining, from college students to retired pastors.

Plans are to launch the network with 100 LCMS amateur radio operators before hurricane season officially

begins in June.

"A hundred amateur radio operators should give us a sufficient base and coverage area for the network to be a major disaster communications contributor right from the beginning," Kienker said. "While there are other great disaster networks out there right now, these networks do not link directly to our LCMS congregations."

After Hurricane Katrina, Kienker says, nearly 1,000 amateur radio operators provided vital communications for relief agencies like the Salvation Army and the Red Cross, helping to direct resources to areas in need.

Some LCMS hams already have played roles in emergency situations. Carol Rutz (KF6FNS), who runs a small computer repair business in New Haven, Ind., used her radio to pick up a plea from a stranded motorist with no cell phone service and contact the AAA for him.

Last February when brush fires threatened homes in Anaheim Hills, Calif., University of California, Irvine, student Matt Bennett (KF6RTB) gathered fire and road-block updates from police and fire departments and relayed information to anxious homeowners and emergency shelters.

"Having an LCMS radio support network is not only a good idea but a must-have," Bennett said. "In the event that a major disaster disrupts cellular and even land-line telephones, the congregations in distress will be able to communicate with family, friends, and other congregations outside the disaster area to let them know they are okay or in need of immediate assistance."

Kienker invites LCMS amateur radio operators of any license level to join the network. Experience in emergency communications through groups like the Radio Amateur Civil Emergency Service (RACES) or the Amateur Radio Emergency Services (ARES) is especially welcome but not necessary.

The new LCMS network will conduct emergency communications training on the air and run drills once it is up and running. Monthly nets (gatherings of amateur operators on a specific radio frequency) will be used to disseminate information to network operators.

For an information packet about the LCMS Amateur Radio Support Network, contact Kienker at (314) 835-8682 or kc0oqp@gmail.com.

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Fremont Repeaters & Net Information

WA6PW/W - 147.015 +600Khz, PL 103.5

WA6PW/W - 223.900 -500Khz, PL 107.2

WA6PW/W - 442.600 +5Mhz, PL 107.2

N6OXR - 146.940 -600Khz, PL 123.0

N6OXR - 441.525 +5Mhz, PL 123.0

ARES - Tuesday @ 7:30pm - 147.015 + PL 103.5

CW - Tuesday & Thursday on 75 meters—3.880
& on 10 Meters at 28.400 MHz, @ 8:30 p.m.

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- CTCSS/DCS Encode/Decode built in

Low Pricing!

Announcements

SBARA monthly meeting:

February 9th.

Veterans Hall in Niles



Come to the Monthly Meeting & Bring a Friend!!

The Ground Plane — KU6S

<http://www.sbara.org>

South Bay Amateur Radio Association — SBARA

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